

REMARKS

Claims 1 and 18 have been amended, claims 16, 17, 37, 38, and 45-48 have been cancelled without prejudice, and claims 49-51 has been added. No new matter has been added by virtue of the amendments and new claims. For instance, support for the amendments and new claims appears e.g. at page 4, lines 13-14 and 28, page 14, lines 7-9, page 5, lines 10-16 and the original claims of the application.

Claims 45-48 were rejected under 35 U.S.C. 112, second paragraph. The rejection is based on grounds of indefiniteness, i.e. matters of form only. The rejection is traversed.

While Applicants disagree that any issues of indefiniteness were presented by claims 45-48, it is also believed that issues noted at page 2 of the Office Action are clearly obviated by the amendments made herein. Thus, for instance, claims 1 and 18 recite acid generator compound and antecedent basis has been further clarified.

In view thereof, reconsideration and withdrawal of the rejection are requested.

Claims 1, 5-8, 10-12, 14-16, 8-20, 24-27, 29, 30, 32-34, 36-37 and 45-48 were rejected under 35 U.S.C. 102 over Sinta (EP 987600).

Claims 1, 5, 8, 10, 11, 14, 16, 18-20, 24, 27, 29, 32-34 and 37 were rejected under 35 U.S.C. 102 over Sinta (U.S. Patent 5886102).

Claims 1, 5-11, 13-16, 18, 24-29, 31-34, 36, 37, 45 and 47 were rejected under 35 U.S.C. 103 over Toshiro (JP 10-301268) in view of Kang et al. (U.S. Patent 6465148).

Claims 1, 5-11, 13-16, 18-20, 24-29, 31-37 and 45-48 were rejected under 35 U.S.C. 103 over Padmanaban (U.S. Patent 6329117) in view of Toshiro (JP 10-301268).

Claims 2-4 and 21-23 were rejected under 35 U.S.C. 103 over Toshiro (JP 10-301268) in view of Kang et al. (U.S. Patent 6465148) or Padmanaban (U.S. Patent 6329117) and further in view of Hatakeyama (U.S. Patent 5985512).

For the sake of brevity, the above five rejections are addressed in combination.

While Applicants disagree with these rejections, it is also believed the rejections have been obviated by the amendments made herein. In particular, independent claims 1 and 18 (the only pending independent claims) have been amended to recite subject matter of former claims 17 and 38 respectively, which former claims were not subject to any of the above rejections.

In view thereof, reconsideration and withdrawal of the rejection are requested.

Claims 17 and 38 were rejected under 35 U.S.C. 103 over Sinta (EP 987600), Sinta (U.S. Patent 5886102), Toshiro (JP 10-301268) in view of Kang et al. (U.S. Patent 6465148) or Padmanaban (U.S. Patent 6329117) and further in view of Park (U.S. Patent 5882835). As grounds for the rejection, the following is stated in the Office Action (pages 8-9):

The references do not disclose that the photoresist layer contains acetal groups. Park teaches that a positive photoresist resin containing acetal groups as protecting groups has advantages over conventional resist because it can be easily deprotected by a weak acid and low temperature PEB (col. 7, 28-35).

The rejection is traversed.

Contrary to the premise of the instant rejection, no particular incentive would have existed to utilize photoresist that contains an acetal resin with the underlayer material reported in Toshiro (JP 10-301268).

Indeed, Toshiro does not describe any photoresists in any type of detail. Park – the sole document relied upon for disclosure of a photoresist with acetal resin – nowhere reports use of an underlayer material.

Such an absence of any disclosure is in marked contrast to Applicants' disclosure, which discloses a previously unreported problem and solution to that problem. Thus, the following is specifically disclosed at page 4, lines 8-11 and page 5, lines 20-24 of the present application:

We have found that such notching is particularly problematic with chemically-amplified positive photoresists that can undergo a photo-induced deblocking reaction under relatively mild conditions, e.g. positive resists that contain a resin with deblocking acetal or ketal groups.

* * *

As demonstrated in the Examples which follow, antireflective compositions of the invention can reduce or eliminate undesired notching even with acetal-based or ketal-based chemically-amplified positive photoresists, which are particularly prone to undesired notching, as discussed above.

Still further, while Applicants fully believe that a *prima facie* case under 35 U.S.C., 103 is not presented by the cited documents, it is also submitted that the extensive comparative data of record fully rebuts any *prima facie* case that may be contended to exist.

In this regard, attention is directed to the results at Table II on pages 30-31 of the application, where the antireflective compositions that contained a basic additive (i.e. Antireflective Compositions of Examples 2-4) provided enhanced results relative to the antireflective compositions that did not contain such basic additive (i.e. the Antireflective Compositions of Comparative Examples 1-5).

As detailed on page 29 of the present application, those comparative tests results include tests with photoresists that contains a resin with acetal groups.

In view thereof, reconsideration and withdrawal of the rejection are requested.

It is believed the application is in condition for immediate allowance, which action is earnestly solicited.

Respectfully submitted,



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